

# Methods Quick Reference Guide

The tables on the following 4 pages list test ranges, methods of analysis, and corresponding reagent set Product Numbers. The complete procedure for each test is included in the manual or CD supplied with the instrument. The ranges given are for the pre-calibrated instrument readout; higher ranges can be analyzed by sample dilution. Parameters marked "EPA" are EPA-approved, accepted, or equivalent for reporting purposes; sample pretreatment may be required on some procedures. If no reagent set is listed for a parameter, order needed reagents and supplies separately.

| Test                                  | EPA Method                      | Number | DR 5000 Range            | DR 5000 DR 3900 & DR 2800 DR 2100 DR 890 DR 850 DR 820 PC II Colorimeter |         |         |        |        |        | Prod. No. |
|---------------------------------------|---------------------------------|--------|--------------------------|--|---------|---------|--------|--------|--------|-----------|
|                                       |                                 |        |                          | DR 5000  | DR 3900 | DR 2100 | DR 890 | DR 850 | DR 820 |           |
| Alachlor in Water                     | Immunoassay                     | 10202  | 0.1 - 0.5 ppb, threshold | •  | •       | •       | •      | •      | •      | 2813000   |
| Alkalinity, Total (TNTplus)           | Colorimetric                    | 10239  | 25 - 400 mg/L            | •  | •       | •       | •      | •      | •      | TNT870    |
| Aluminum                              | Aluminon                        | 8012   | 0.008 - 0.800 mg/L       | •  | •       | •       | •      | •      | •      | 2242000   |
| Aluminum                              | Eriochrome Cyanine R            | 8326   | 0.002 - 0.250 mg/L       | •  | •       | •       | •      | •      | •      | 2603700   |
| Aluminum (TNTplus)                    | Chromazurol S                   | 10215  | 0.02 - 0.50 mg/L         | •  | •       | •       | •      | •      | •      | TNT848    |
| Ammonia, Nitrogen                     | Salicylate                      | 8155   | 0.01 - 0.50 mg/L         | •  | •       | •       | •      | •      | •      | 2668000   |
| Ammonia, Nitrogen (TNTplus), ULR      | • Salicylate                    | 10205  | 0.015 - 2.000 mg/L       | •  | •       | •       | •      | •      | •      | TNT830    |
| Ammonia, Nitrogen                     | Nessler                         | 8038   | 0.02 - 2.50 mg/L         | •  | •       | •       | •      | •      | •      | 2458200   |
| Ammonia, Nitrogen (Test 'N Tube), LR  | Salicylate                      | 10023  | 0.02 - 2.50 mg/L         | •  | •       | •       | •      | •      | •      | 2604545   |
| Ammonia, Nitrogen (TNTplus), LR       | • Salicylate                    | 10205  | 1 - 12 mg/L              | •  | •       | •       | •      | •      | •      | TNT831    |
| Ammonia, Nitrogen (Test 'N Tube), HR  | Salicylate                      | 10031  | 0.4 - 50.0 mg/L          | •  | •       | •       | •      | •      | •      | 2606945   |
| Ammonia, Nitrogen (TNTplus), HR       | • Salicylate                    | 10205  | 2 - 47 mg/L              | •  | •       | •       | •      | •      | •      | TNT832    |
| Ammonia, Free, Nitrogen               | Indophenol                      | 10200  | 0.01 - 0.50 mg/L         | •  | •       | •       | •      | •      | •      | 2879700   |
| Arsenic                               | • Silver Diethyldithiocarbamate | 8013   | 0.020 - 0.200 mg/L       | •  | •       | •       | •      | •      | •      | —         |
| Atrazine                              | Immunoassay                     | 10050  | 0.5 - 3.0 ppb, threshold | •  | •       | •       | •      | •      | •      | 2762700   |
| Barium                                | Turbidimetric                   | 8014   | 2 - 100 mg/L             | •  | •       | •       | •      | •      | •      | 1206499   |
| Benzotriazole                         | UV Photolysis                   | 8079   | 1.0 - 16.0 mg/L          | •  | •       | •       | •      | •      | •      | 2141299   |
| Boron                                 | Carmine                         | 8015   | 0.2 - 14.0 mg/L          | •  | •       | •       | •      | •      | •      | —         |
| Bromine                               | DPD                             | 8016   | 0.05 - 4.50 mg/L         | •  | •       | •       | •      | •      | •      | 2105669   |
| Bromine (AccuVac)                     | DPD                             | 8016   | 0.05 - 4.50 mg/L         | •  | •       | •       | •      | •      | •      | 2503025   |
| Cadmium                               | Dithizone                       | 8017   | 0.7 - 80.0 µg/L          | •  | •       | •       | •      | •      | •      | 2242200   |
| Cadmium (TNTplus) <sup>1</sup>        | Cadion                          | 10217  | 0.02 - 0.30 mg/L         | •  | •       | •       | •      | •      | •      | TNT852    |
| Carbohydrazide                        | Iron Reduction                  | 8140   | 5 - 600 µg/L             | •  | •       | •       | •      | •      | •      | 2446600   |
| Chloramine, Mono, LR                  | Indophenol                      | 10171  | 0.04 - 4.50 mg/L         | •  | •       | •       | •      | •      | •      | 2802246   |
| Chloramine, Mono (Test 'N Tube), HR   | Indophenol                      | 10172  | 0.1 - 10.0 mg/L          | •  | •       | •       | •      | •      | •      | 2805145   |
| Chloride                              | Mercuric Thiocyanate            | 8113   | 0.1 - 25.0 mg/L          | •  | •       | •       | •      | •      | •      | 2319800   |
| Chlorine, Free                        | Indophenol                      | 10241  | 0.04 - 4.50 mg/L         | •  | •       | •       | •      | •      | •      | —         |
| Chlorine, Free                        | • DPD                           | 8021   | 0.02 - 2.00 mg/L         | •  | •       | •       | •      | •      | •      | 2105569   |
| Chlorine, Free (AccuVac)              | • DPD                           | 8021   | 0.02 - 2.00 mg/L         | •  | •       | •       | •      | •      | •      | 2502025   |
| Chlorine, Free (Pour-Thru Cell)       | DPD Rapid Liquid                | 10059  | 0.02 - 2.00 mg/L         | •  | •       | •       | •      | •      | •      | 2556900   |
| Chlorine, Free (TNTplus)              | • DPD                           | 10231  | 0.05 - 2.00 mg/L         | •  | •       | •       | •      | •      | •      | TNT866    |
| Chlorine, Free (Test 'N Tube)         | DPD                             | 10102  | 0.09 - 5.00 mg/L         | •  | •       | •       | •      | •      | •      | 2105545   |
| Chlorine, Free, MR                    | • DPD                           | 10245  | 0.05 - 4.00 mg/L         | •  | •       | •       | •      | •      | •      | 1407099   |
| Chlorine, Free, HR                    | • DPD                           | 10069  | 0.1 - 10.0 mg/L          | •  | •       | •       | •      | •      | •      | 1407099   |
| Chlorine, Free & Total (TNTplus)      | • DPD                           | 10232  | 0.05 - 2.00 mg/L         | •  | •       | •       | •      | •      | •      | TNT866T   |
| Chlorine, Total (Pour-Thru Cell), ULR | • DPD                           | 8370   | 2 - 500 µg/L             | •  | •       | •       | •      | •      | •      | 2563000   |
|                                       |                                 | 10014  |                          |  |         |         |        |        |        |           |
| Chlorine, Total                       | • DPD                           | 8167   | 0.02 - 2.00 mg/L         | •  | •       | •       | •      | •      | •      | 2105669   |
| Chlorine, Total (AccuVac)             | • DPD                           | 8167   | 0.02 - 2.00 mg/L         | •  | •       | •       | •      | •      | •      | 2503025   |
| Chlorine, Total (Pour-Thru Cell)      | DPD Rapid Liquid                | 10060  | 0.02 - 2.00 mg/L         | •  | •       | •       | •      | •      | •      | 2557000   |
| Chlorine, Total (Test 'N Tube)        | DPD                             | 10101  | 0.09 - 5.00 mg/L         | •  | •       | •       | •      | •      | •      | 2105645   |
| Chlorine, Total, MR                   | • DPD                           | 10250  | 0.05 - 4.00 mg/L         | •  | •       | •       | •      | •      | •      | 1406499   |
| Chlorine, Total, HR                   | • DPD                           | 10070  | 0.1 - 10.0 mg/L          | •  | •       | •       | •      | •      | •      | 1406499   |
| Chlorine Demand/Requirement           | • DPD                           | 10223  | Multiple Ranges          | •  | •       | •       | •      | •      | •      | —         |
| Chlorine Dioxide, DPD                 | DPD/Glycine                     | 10126  | 0.04 - 5.00 mg/L         | •  | •       | •       | •      | •      | •      | 2770900   |
| Chlorine Dioxide, DPD (AccuVac)       | • DPD/Glycine                   | 10126  | 0.04 - 5.00 mg/L         | •  | •       | •       | •      | •      | •      | 2771000   |
| Chlorine Dioxide (Europe Only)        | Amaranth                        |        | 20 - 500 µg/L            | •  | •       | •       | •      | •      | •      | —         |
| Chlorine Dioxide, LR                  | Chlorophenol Red                | 8065   | 0.01 - 1.00 mg/L         | •  | •       | •       | •      | •      | •      | 2242300   |
| Chlorine Dioxide, MR                  | Direct Reading                  | 8345   | 1 - 50 mg/L              | •  | •       | •       | •      | •      | •      | —         |
| Chlorine Dioxide, HR                  | Direct Reading                  | 8138   | 5 - 1000 mg/L            | •  | •       | •       | •      | •      | •      | —         |

<sup>1</sup>As listed, test determines soluble metal. Order Metals Prep Set TNT890 to determine total metal.



## Methods Quick Reference Guide

| Test                                     | EPA Method                                | Number | DR 5000 Range      | DR 5000 | DR 3900 & DR 2800 | DR 2700 | DR 890 | DR 850 | DR 820 | PC II Colorimeter | Prod. No. |
|--|---|--------|--------------------|---------|-------------------|---------|--------|--------|--------|-------------------|-----------|
| Chromium, Hexavalent                     | • 1,5 Diphenylcarbohydrazide              | 8023   | 0.010 - 0.700 mg/L | •       | •                 | •       | •      | •      | •      | •                 | 1271099   |
| Chromium, Hexavalent (AccuVac)           | • 1,5 Diphenylcarbohydrazide              | 8023   | 0.010 - 0.700 mg/L | •       | •                 | •       | •      | •      | •      | •                 | 2505025   |
| Chromium, Hexavalent and Total (TNTplus) | • <sup>1</sup> 1,5 Diphenylcarbohydrazide | 10218  | 0.03 - 1.00 mg/L   | •       | •                 | •       | •      | •      | •      | •                 | TNT854    |
| Chromium, Total                          | Alkaline Hypobromite Oxidation            | 8024   | 0.01 - 0.70 mg/L   | •       | •                 | •       | •      | •      | •      | •                 | 2242500   |
| Cobalt                                   | PAN                                       | 8078   | 0.01 - 2.00 mg/L   | •       | •                 | •       | •      | •      | •      | •                 | 2651600   |
| COD, ULR                                 | Dichromate                                | 8000   | 0.7 - 40.0 mg/L    | •       | •                 | •       | •      | •      | •      | •                 | 2415825   |
| COD, LR                                  | • Dichromate                              | 8000   | 3 - 150 mg/L       | •       | •                 | •       | •      | •      | •      | •                 | 2125825   |
| COD, HR                                  | • Dichromate                              | 8000   | 20 - 1,500 mg/L    | •       | •                 | •       | •      | •      | •      | •                 | 2125925   |
| COD, HR+                                 | Dichromate                                | 8000   | 200 - 15,000 mg/L  | •       | •                 | •       | •      | •      | •      | •                 | 2415925   |
| COD                                      | Manganese III                             | 10067  | 30 - 1000 mg/L     | •       | •                 | •       | •      | •      | •      | •                 | 2623425   |
| COD, Mercury-Free (TNTplus), HR          | Dichromate                                | 10236  | 25 - 100 mg/L      | •       | •                 | •       | •      | •      | •      | •                 | TNT825    |
| COD (TNTplus), ULR                       | Dichromate                                | 10211  | 1 - 60 mg/L        | •       | •                 | •       | •      | •      | •      | •                 | TNT820    |
| COD (TNTplus), LR                        | • Dichromate                              | 8000   | 3 - 150 mg/L       | •       | •                 | •       | •      | •      | •      | •                 | TNT821    |
| COD (TNTplus), HR                        | • Dichromate                              | 8000   | 20 - 1500 mg/L     | •       | •                 | •       | •      | •      | •      | •                 | TNT822    |
| COD (TNTplus), UHR                       | Dichromate                                | 10212  | 250 - 15,000 mg/L  | •       | •                 | •       | •      | •      | •      | •                 | TNT823    |
| Color                                    | ADMI Weighted Ordinate                    | 10048  | 3 - 250 units      | •       | •                 | •       | •      | •      | •      | •                 | —         |
| Color, True and Apparent                 | Platinum-Cobalt                           | 8025   | 15 - 500 units     | •       | •                 | •       | •      | •      | •      | •                 | —         |
| Color, True and Apparent, LR             | Platinum-Cobalt                           | 8025   | 3 - 200 units      | •       | •                 | •       | •      | •      | •      | •                 | —         |
| Copper, LR                               | Porphyrin                                 | 8143   | 1 - 210 µg/L       | •       | •                 | •       | •      | •      | •      | •                 | 2603300   |
| Copper                                   | • Bicinchoninate                          | 8506   | 0.04 - 5.00 mg/L   | •       | •                 | •       | •      | •      | •      | •                 | 2105869   |
| Copper (AccuVac)                         | Bicinchoninate                            | 8026   | 0.04 - 5.00 mg/L   | •       | •                 | •       | •      | •      | •      | •                 | 2504025   |
| Copper (TNTplus) <sup>2</sup>            | Bathocuproine                             | 10238  | 0.1 - 8.0 mg/L     | •       | •                 | •       | •      | •      | •      | •                 | TNT860    |
| Cyanide                                  | Pyridine-Pyrazalone                       | 8027   | 0.002 - 0.240 mg/L | •       | •                 | •       | •      | •      | •      | •                 | 2430200   |
| Cyanuric Acid                            | Turbidimetric                             | 8139   | 5 - 50 mg/L        | •       | •                 | •       | •      | •      | •      | •                 | 246066    |
| DEHA (Diethylhydroxylamine)              | Iron Reduction                            | 8140   | 3 - 450 µg/L       | •       | •                 | •       | •      | •      | •      | •                 | 2446600   |
| Detergents (Surfactants)                 | Crystal Violet                            | 8028   | 0.002 - 0.275 mg/L | •       | •                 | •       | •      | •      | •      | •                 | 2446800   |
| Dissolved Oxygen (AccuVac), LR           | Indigo Carmine                            | 8316   | 6 - 800 µg/L       | •       | •                 | •       | •      | •      | •      | •                 | 2501025   |
| Dissolved Oxygen (AccuVac), HR           | HRDO                                      | 8166   | 0.3 - 15.0 mg/L    | •       | •                 | •       | •      | •      | •      | •                 | 2515025   |
| Dissolved Oxygen (AccuVac), UHR          | Ultra High Range                          | 8333   | 1.0 - 40.0 mg/L    | •       | •                 | •       | •      | •      | •      | •                 | 2515025   |
| Erythorbic Acid (Isoascorbic Acid)       | Iron Reduction                            | 8140   | 13 - 1500 µg/L     | •       | •                 | •       | •      | •      | •      | •                 | 2446600   |
| Fluoride, Arsenic Free                   | • <sup>3,4</sup> SPADNS 2                 | 10225  | 0.02 - 2.00 mg/L   | •       | •                 | •       | •      | •      | •      | •                 | 2947549   |
| Fluoride, Arsenic Free (AccuVac)         | • <sup>3,4</sup> SPADNS 2                 | 10225  | 0.02 - 2.00 mg/L   | •       | •                 | •       | •      | •      | •      | •                 | 2527025   |
| Fluoride                                 | • <sup>4</sup> SPADNS                     | 8029   | 0.02 - 2.00 mg/L   | •       | •                 | •       | •      | •      | •      | •                 | 44449     |
| Fluoride (AccuVac)                       | • <sup>4</sup> SPADNS                     | 8029   | 0.02 - 2.00 mg/L   | •       | •                 | •       | •      | •      | •      | •                 | 2506025   |
| Formaldehyde                             | MBTH                                      | 8110   | 3 - 500 µg/L       | •       | •                 | •       | •      | •      | •      | •                 | 2257700   |
| Hardness, Total, ULR                     | Chlorophosphonazo                         | 8374   | 8 - 1000 µg/L      | •       | •                 | •       | •      | •      | •      | •                 | 2603100   |
| Hardness, Total, ULR (Pour-Thru Cell)    | Colorimetric                              | 8374   | 4 - 1000 µg/L      | •       | •                 | •       | •      | •      | •      | •                 | —         |
| Hardness, Ca & Mg                        | Chlorophosphonazo Rapid Liquid            | 8374   | 4 - 1000 µg/L      | •       | •                 | •       | •      | •      | •      | •                 | —         |
| Hydrazine                                | Calmagite Colorimetric                    | 8030   | 0.05 - 4.00 mg/L   | •       | •                 | •       | •      | •      | •      | •                 | 2319900   |
| Hydrazine (AccuVac)                      | p-Dimethylaminobenzaldehyde               | 8141   | 4 - 600 µg/L       | •       | •                 | •       | •      | •      | •      | •                 | 179032    |
| Hydroquinone                             | p-Dimethylaminobenzaldehyde               | 8141   | 4 - 600 µg/L       | •       | •                 | •       | •      | •      | •      | •                 | 2524025   |
| Iodine DPD                               | Iron Reduction                            | 8140   | 9 - 1000 µg/L      | •       | •                 | •       | •      | •      | •      | •                 | 2446600   |
| Iodine DPD (AccuVac)                     | DPD                                       | 8031   | 0.07 - 7.00 mg/L   | •       | •                 | •       | •      | •      | •      | •                 | 2105669   |
| Iron (TNTplus) <sup>2</sup>              | DPD                                       | 8031   | 0.07 - 7.00 mg/L   | •       | •                 | •       | •      | •      | •      | •                 | 2503025   |
| Iron                                     | • Phenanthroline                          | 10229  | 0.2 - 6.0 mg/L     | •       | •                 | •       | •      | •      | •      | •                 | TNT858    |
| Iron (Pour-Thru Cell)                    | FerroZine                                 | 8147   | 0.009 - 1.400 mg/L | •       | •                 | •       | •      | •      | •      | •                 | 230166    |
| Iron, Ferrous                            | FerroZine Rapid Liquid                    | 8147   | 0.009 - 1.400 mg/L | •       | •                 | •       | •      | •      | •      | •                 | 230149    |
| Iron, Ferrous (AccuVac)                  | 1, 10 Phenanthroline                      | 8146   | 0.02 - 3.00 mg/L   | •       | •                 | •       | •      | •      | •      | •                 | 103769    |
| Iron, Total                              | 1, 10 Phenanthroline                      | 8146   | 0.02 - 3.00 mg/L   | •       | •                 | •       | •      | •      | •      | •                 | 2514025   |
| Iron, Total                              | FerroMo                                   | 8365   | 0.01 - 1.80 mg/L   | •       | •                 | •       | •      | •      | •      | •                 | 2544800   |
| Iron, Total                              | TPTZ                                      | 8112   | 0.012 - 1.800 mg/L | •       | •                 | •       | •      | •      | •      | •                 | 2608799   |
| Iron, Total (AccuVac)                    | TPTZ                                      | 8112   | 0.012 - 1.800 mg/L | •       | •                 | •       | •      | •      | •      | •                 | 2510025   |
| Iron, Total                              | • FerroVer                                | 8008   | 0.02 - 3.00 mg/L   | •       | •                 | •       | •      | •      | •      | •                 | 2105769   |

<sup>1</sup>EPA approved for Cr<sup>6+</sup> only. <sup>2</sup>As listed, test determines soluble metal. Order Metals Prep Set TNT890 to determine total metal.<sup>3</sup>Per 40 CFR 136.6 Method Modification and Flexibility. <sup>4</sup>Not EPA accepted for drinking water using DR/800 Series colorimeters.

Be Right™

## Methods Quick Reference Guide

| Test   | EPA Method                           | Number | DR 5000 Range         | DR 5000 | DR 3900 & DR 2800 | DR 2700 | DR 890 | DR 350 | DR 320 | PC II Colorimeter | Prod. No. |
|--|--------------------------------------|--------|-----------------------|---------|-------------------|---------|--------|--------|--------|-------------------|-----------|
| Iron, Total (AccuVac)                                | FerroVer                             | 8008   | 0.02 - 3.00 mg/L      | •       | •                 | •       | •      | •      | •      | •                 | 2507025   |
| Isoascorbic Acid (Erythorbic Acid) (ISA)             | Iron Reduction                       | 8140   | 13 - 1500 µg/L        | •       | •                 | •       | •      | •      | •      | •                 | 2446600   |
| Lead   | LeadTrak Fast Column Extraction 8317 | 8317   | 5 - 150 µg/L          | •       | •                 | •       | •      | •      | •      | •                 | 2375000   |
| Lead   | Dithizone                            | 8033   | 3 - 300 µg/L          | •       | •                 | •       | •      | •      | •      | •                 | 2243100   |
| Lead (TNTplus)*                                      | PAR                                  | 10216  | 0.1 - 2.0 mg/L        | •       | •                 | •       | •      | •      | •      | •                 | TNT850    |
| Manganese, LR  | PAN                                  | 8149   | 0.006 - 0.700 mg/L    | •       | •                 | •       | •      | •      | •      | •                 | 2651700   |
| Manganese, HR  | Periodate Oxidation                  | 8034   | 0.1 - 20.0 mg/L       | •       | •                 | •       | •      | •      | •      | •                 | 2430000   |
| Mercury  | Cold Vapor Mercury Concentration     | 10065  | 0.1 - 2.5 µg/L        | •       | •                 | •       | •      | •      | •      | •                 | 2658300   |
| Methylethylketoxime (MEKO)                           | Iron Reduction                       | 8140   | 15 - 1000 µg/L        | •       | •                 | •       | •      | •      | •      | •                 | 2446600   |
| Molybdenum, Molybdate, LR                            | Ternary Complex                      | 8169   | 0.02 - 3.00 mg/L      | •       | •                 | •       | •      | •      | •      | •                 | 2449400   |
| Molybdenum, Molybdate, HR                            | Mercaptoacetic Acid                  | 8036   | 0.2 - 40.0 mg/L       | •       | •                 | •       | •      | •      | •      | •                 | 2604100   |
| Molybdenum, Molybdate (AccuVac), HR                  | Mercaptoacetic Acid                  | 8036   | 0.2 - 40.0 mg/L       | •       | •                 | •       | •      | •      | •      | •                 | —         |
| Nickel   | PAN                                  | 8150   | 0.006 - 1.000 mg/L    | •       | •                 | •       | •      | •      | 3      | •                 | 2651600   |
| Nickel   | Heptoxime                            | 8037   | 0.02 - 1.80 mg/L      | •       | •                 | •       | •      | •      | •      | •                 | 2243500   |
| Nickel (TNTplus)*                                    | Dimethylglyoxime                     | 10220  | 0.1 - 6.0 mg/L        | •       | •                 | •       | •      | •      | •      | •                 | TNT856    |
| Nitrate, Nitrogen, LR                                | Cadmium Reduction                    | 8192   | 0.01 - 0.50 mg/L      | •       | •                 | •       | •      | •      | •      | •                 | 2429800   |
| Nitrate, Nitrogen (TNTplus), LR                      | Dimethylphenol                       | 10206  | 0.23 - 13.5 mg/L      | •       | •                 | •       | •      | •      | •      | •                 | TNT835    |
| Nitrate, Nitrogen, MR                                | Cadmium Reduction                    | 8171   | 0.1 - 10.0 mg/L       | •       | •                 | •       | •      | •      | •      | •                 | 2106169   |
| Nitrate, Nitrogen (AccuVac), MR                      | Cadmium Reduction                    | 8171   | 0.1 - 10.0 mg/L       | •       | •                 | •       | •      | •      | •      | •                 | 2511025   |
| Nitrate, Nitrogen                                    | UV Screening                         | 10049  | 0.1 - 10.0 mg/L       | •       | •                 | •       | •      | •      | •      | •                 | —         |
| Nitrate, Nitrogen (Test 'N Tube), HR                 | Chromotropic Acid                    | 10020  | 0.2 - 30.0 mg/L       | •       | •                 | •       | •      | •      | •      | •                 | 2605345   |
| Nitrate, Nitrogen, HR                                | Cadmium Reduction                    | 8039   | 0.3 - 30.0 mg/L       | •       | •                 | •       | •      | •      | •      | •                 | 2106169   |
| Nitrate, Nitrogen (AccuVac), HR                      | Cadmium Reduction                    | 8039   | 0.3 - 30.0 mg/L       | •       | •                 | •       | •      | •      | •      | •                 | 2511025   |
| Nitrate, Nitrogen (TNTplus), HR                      | Dimethylphenol                       | 10206  | 5 - 35 mg/L           | •       | •                 | •       | •      | •      | •      | •                 | TNT836    |
| Nitrite, Nitrogen, LR                                | Diazotization                        | 8507   | 0.002 - 0.300 mg/L    | •       | •                 | •       | •      | •      | •      | •                 | 2107169   |
| Nitrite, Nitrogen (AccuVac), LR                      | Diazotization                        | 8507   | 0.002 - 0.300 mg/L    | •       | •                 | •       | •      | •      | •      | •                 | 2512025   |
| Nitrite, Nitrogen (Test 'N Tube), LR                 | Diazotization                        | 10019  | 0.003 - 0.500 mg/L    | •       | •                 | •       | •      | •      | •      | •                 | 2608345   |
| Nitrite, Nitrogen (TNTplus), LR                      | Diazotization                        | 10207  | 0.015 - 0.600 mg/L    | •       | •                 | •       | •      | •      | •      | •                 | TNT839    |
| Nitrite, Nitrogen (TNTplus), HR                      | Diazotization                        | 10237  | 0.6 - 6.0 mg/L        | •       | •                 | •       | •      | •      | •      | •                 | TNT840    |
| Nitrite, Nitrogen, HR                                | Ferrous Sulfate                      | 8153   | 2 - 250 mg/L          | •       | •                 | •       | •      | •      | •      | •                 | 2107569   |
| Nitrogen, Ammonia (see Ammonia, Nitrogen)            |                                      |        |                       |         |                   |         |        |        |        |                   |           |
| Nitrogen, Total (Test 'N Tube), LR                   | Persulfate Digestion                 | 10071  | 0.5 - 25.0 mg/L       | •       | •                 | •       | •      | •      | •      | •                 | 2672245   |
| Nitrogen, Total (TNTplus), LR                        | Persulfate Digestion                 | 10208  | 1 - 16 mg/L           | •       | •                 | •       | •      | •      | •      | •                 | TNT826    |
| Nitrogen, Total (TNTplus), HR                        | Persulfate Digestion                 | 10208  | 5 - 40 mg/L           | •       | •                 | •       | •      | •      | •      | •                 | TNT827    |
| Nitrogen, Total (Test 'N Tube), HR                   | Persulfate Digestion                 | 10072  | 2 - 150 mg/L          | •       | •                 | •       | •      | •      | •      | •                 | 2714100   |
| Nitrogen, Total (TNTplus), UHR                       | Persulfate Digestion                 | 10208  | 20 - 100 mg/L         | •       | •                 | •       | •      | •      | •      | •                 | TNT828    |
| Nitrogen, Total Inorganic (TIN) (Test 'N Tube)       | Titanium Trichloride Reduction       | 10021  | 0.2 - 25.0 mg/L       | •       | •                 | •       | •      | •      | •      | •                 | 2604945   |
| Nitrogen, Simplified TKN (TNTplus)                   | s-TKN                                | 10242  | 0 - 16 mg/L           | •       | •                 | •       | •      | •      | •      | •                 | TNT880    |
| Nitrogen, Total Kjeldahl (TKN)                       | Nessler                              | 8075   | 1 - 150 mg/L          | •       | •                 | •       | •      | •      | •      | •                 | 2495300   |
| Organic Carbon, Total (See TOC)                      |                                      |        |                       |         |                   |         |        |        |        |                   | —         |
| Organic Constituents, UV-Absorbing (UV-254)          | Direct Reading                       | 10054  | Varies-Units Abs/cm   | •       | •                 | •       | •      | •      | •      | •                 | —         |
| Oxygen Demand, Chemical (See COD)                    |                                      |        |                       |         |                   |         |        |        |        |                   | —         |
| Oxygen, Dissolved (See Dissolved Oxygen)             |                                      |        |                       |         |                   |         |        |        |        |                   | —         |
| Oxygen Scavengers (See specific compounds)           |                                      |        |                       |         |                   |         |        |        |        |                   | —         |
| Ozone (AccuVac), LR                                  | Indigo                               | 8311   | 0.01 - 0.25 mg/L      | •       | •                 | •       | •      | •      | •      | •                 | 2516025   |
| Ozone (AccuVac), MR                                  | Indigo                               | 8311   | 0.01 - 0.75 mg/L      | •       | •                 | •       | •      | •      | •      | •                 | 2517025   |
| Ozone (AccuVac), HR                                  | Indigo                               | 8311   | 0.01 - 1.50 mg/L      | •       | •                 | •       | •      | •      | •      | •                 | 2518025   |
| PCB (Polychlorinated Biphenyls) in Soil <sup>2</sup> | Immunoassay                          | 10050  | 1 - 50 ppm, threshold | •       | •                 | •       | •      | •      | •      | •                 | 2773500   |
| pH   | Colorimetric Phenol Red              | 10076  | 6.5 - 8.5 units       | •       | •                 | •       | •      | •      | •      | •                 | 2657512   |
| Phenols  | 4-Aminoantipyrine                    | 8047   | 0.002 - 0.200 mg/L    | •       | •                 | •       | •      | •      | •      | •                 | 2243900   |

<sup>1</sup>As listed, test determines soluble metal. Order Metals Prep Set TNT890 to determine total metal. <sup>2</sup>Requires Soil Extraction Kit. Please order Prod. No. 2775100. (Included with Pocket Colorimeter II). <sup>3</sup>Nickel PAN method reagent set for DR/890 is Prod. No. 2242600.



## Methods Quick Reference Guide

| Test  | EPA Method                                      | Number | DR 5000 Range         | DR 5000 |         |         |         |        | DR 3900 & DR 2800 |                   | DR 2700 |         | DR 890  |         | DR 1850 |         | PC II Colorimeter |         | Prod. No. |
|---|---|--------|-----------------------|---------|---------|---------|---------|--------|-------------------|-------------------|---------|---------|---------|---------|---------|---------|-------------------|---------|-----------|
|   |   |        |                       | DR 5000 | DR 3900 | DR 2800 | DR 2700 | DR 890 | DR 1850           | PC II Colorimeter | DR 5000 | DR 3900 | DR 2800 | DR 2700 | DR 890  | DR 1850 | PC II Colorimeter |         |           |
| Phosphonates                                  | Persulfate UV Oxidation                         | 8007   | 0.02 - 125.0 mg/L     | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2429700 |           |
| Phosphorus, Reactive                          | • PhosVer 3                                     | 8048   | 0.02 - 2.50 mg/L      | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2106069 |           |
| Phosphorus, Reactive (AccuVac)                | • PhosVer 3                                     | 8048   | 0.02 - 2.50 mg/L      | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2508025 |           |
| Phosphorus, Reactive (Test 'N Tube)           | • PhosVer 3                                     | 8048   | 0.06 - 5.00 mg/L      | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2742545 |           |
| Phosphorus, Reactive                          | Amino Acid                                      | 8178   | 0.23 - 30.00 mg/L     | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2244100 |           |
| Phosphorus, Reactive                          | Molybdoavanadate                                | 8114   | 0.3 - 45.0 mg/L       | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2076032 |           |
| Phosphorus, Reactive (AccuVac)                | Molybdoavanadate                                | 8114   | 0.3 - 45.0 mg/L       | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2525025 |           |
| Phosphorus, Reactive (Test 'N Tube), HR       | Molybdoavanadate                                | 8114   | 1.0 - 100.0 mg/L      | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2767345 |           |
| Phosphorus, Reactive (Pour-Thru Cell), HR     | Molybdoavanadate Rapid Liquid                   | 8114   | 0.3 - 45.0 mg/L       | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2076049 |           |
| Phosphorus, Reactive (Pour-Thru Cell), LR     | • Ascorbic Acid Rapid Liquid                    | 10055  | 19 - 3000 µg/L        | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2678600 |           |
| Phosphorus, Reactive (TNTplus)                | Molybdoavanadate                                | 10214  | 5.0 - 90.0 mg/L       | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | TNT846  |           |
| Phosphorus, Acid Hydrolyzable (Test 'N Tube)  | PhosVer 3 with Acid Hydrolysis                  | 8180   | 0.06 - 3.50 mg/L      | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2742645 |           |
| Phosphorus, Total (Test 'N Tube)              | • PhosVer 3 with Acid Persulfate Digestion      | 8190   | 0.06 - 3.50 mg/L      | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2742645 |           |
| Phosphorus, Total (Test 'N Tube), HR          | Molybdoavanadate with Acid Persulfate Digestion | 10127  | 1.0 - 100.0 mg/L      | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2767245 |           |
| Phosphorus, Reactive and Total (TNTplus), LR  | • Ascorbic Acid                                 | 10209  | 0.15 - 4.50 mg/L      | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | TNT843  |           |
| Phosphorus, Reactive and Total (TNTplus), HR  | • Ascorbic Acid                                 | 10209  | 1.5 - 15.0 mg/L       | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | TNT844  |           |
| Phosphorus, Reactive and Total (TNTplus), UHR | • Ascorbic Acid                                 | 10209  | 6 - 60 mg/L           | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | TNT845  |           |
| • 10210                                       | Tetraphenylborate                               | 8049   | 0.1 - 7.0 mg/L        | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2459100 |           |
| Potassium                                     | Direct Binary Complex                           | 8337   | 0.2 - 5.0 mg/L        | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2459200 |           |
| Quaternary Ammonium Compounds                 | Diaminobenzidine                                | 8194   | 0.01 - 1.00 mg/L      | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2244200 |           |
| Selenium                                      | Heteropoly Blue                                 | 8282   | 3 - 1000 µg/L         | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2553500 |           |
| Silica (Pour-Thru Cell), ULR                  | Heteropoly Blue Rapid Liquid                    | 8282   | 3 - 1000 µg/L         | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2678500 |           |
| Silica (Pour-Thru Cell), ULR                  | Heteropoly Blue                                 | 8186   | 0.010 - 1.600 mg/L    | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2459300 |           |
| Silica, LR                                    | Silicomolybdate                                 | 8185   | 1 - 100 mg/L          | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2429600 |           |
| Silica, HR                                    | Colorimetric                                    | 8120   | 0.02 - 0.70 mg/L      | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2296600 |           |
| Silver  | • SulfaVer 4                                    | 8051   | 2 - 70 mg/L           | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2106769 |           |
| Sulfate                                       | • SulfaVer 4                                    | 8051   | 2 - 70 mg/L           | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2509025 |           |
| Sulfate (AccuVac)                             | Turbidimetric                                   | 10227  | 40 - 150 mg/L         | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | TNT864  |           |
| Sulfate (TNTplus), LR                         | Turbidimetric                                   | 10227  | 150 - 900 mg/L        | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | TNT865  |           |
| Sulfide                                       | • Methylene Blue                                | 8131   | 5 - 800 µg/L          | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2244500 |           |
| Sulfite (Europe only)                         | Colorimetric                                    |        | 0.10 - 5.00 mg/L      | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | —       |           |
| Surfactants (See Detergents)                  | Photometric                                     | 8006   | 5 - 750 mg/L          | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | —       |           |
| Suspended Solids                              | Tyrosine  | 8193   | 0.1 - 9.0 mg/L        | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2244600 |           |
| Tannin & Lignin                               | Direct Method                                   | 10129  | 0.3 - 20.0 mg/L       | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2760345 |           |
| TOC (Total Organic Carbon), LR                | Direct Method                                   | 10173  | 15 - 150 mg/L         | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2815945 |           |
| TOC (Total Organic Carbon), MR                | Direct Method                                   | 10128  | 100 - 700 mg/L        | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2760445 |           |
| TOC (Total Organic Carbon), HR                | UV Photolysis                                   | 8079   | 1.0 - 20.0 mg/L       | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2141299 |           |
| Tolytriazole                                  | ToxTrak   | 10017  | 0 - 100 % inhibition  | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2597200 |           |
| Toxicity                                      | Immunoassay                                     | 10050  | 2 - 20 ppm, threshold | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2774300 |           |
| TPH in Soil'                                  | Immunoassay                                     | 10050  | 2 - 20 ppm, threshold | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2774300 |           |
| TPH in Water                                  | THM Plus  | 10132  | 10 - 600 µg/L         | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2790800 |           |
| Trihalomethanes (THM)                         | THM Plus  | 10224  | 10 - 600 µg/L         | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2790800 |           |
| Trihalomethane Formation Potential (THMFP)    | Esterification                                  | 8196   | 27 - 2800 mg/L        | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2244700 |           |
| Volatile Acids                                | Esterification                                  | 10240  | 50 - 2500 mg/L        | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | TNT872  |           |
| Volatile Acids (TNTplus)                      | Zincon  | 8009   | 0.01 - 3.00 mg/L      | •       | •       | •       | •       | •      | •                 | •                 | •       | •       | •       | •       | •       | •       | •                 | 2429300 |           |

<sup>1</sup>Requires Soil Extraction Kit. Please order Prod. No. 2775100. (Included with Pocket Colorimeter II).

For more information or to place an order, call 800-227-4224 or visit: [www.hach.com](http://www.hach.com)

Lit. No. 2353 Rev 1  
C11 Printed in U.S.A.

